

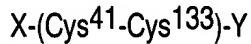
Amendment

This listing of claims will replace all prior versions, and listings, of claims in the application:

In the Claims:

30. **(Currently Amended)** A method for affecting the survival or function of neurons comprising administering a pharmaceutical composition comprising:

(a) a truncated glial cell line-derived neurotrophic factor (GDNF) protein product consisting of an amino acid sequence



wherein

(Cys⁴¹-Cys¹³³) consists of Cys⁴¹ through Cys¹³³ of SEQ ID NO:2;

Y represents the carboxy terminal group of Cys¹³³, a carboxy-terminus amino acid residue of Ile¹³⁴, or a substituted amino acid residue, and

X represents a methionylated or nonmethionylated amine group of Cys⁴¹ or amino-terminus amino acid residue(s) selected from the group:

	G
	RG
	NRG
	KNRG (SEQ ID NO:3)
	GKNRG (SEQ ID NO:4)
	RGKNRG (SEQ ID NO:5)
	QRGKNRG (SEQ ID NO:6)
	GQRGKNRG (SEQ ID NO:7)
	RGQRGKNRG (SEQ ID NO:8)
	RRGQRGKNRG (SEQ ID NO:9)
G	RRGQRGKNRG (SEQ ID NO:10)
KG	RRGQRGKNRG (SEQ ID NO:11)
GKG	RRGQRGKNRG (SEQ ID NO:12)
RGKG	RRGQRGKNRG (SEQ ID NO:13)

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cont

	SRGKG	RRGQRGKNRG (SEQ ID NO:14)
	NSRGKG	RRGQRGKNRG (SEQ ID NO:15)
	ENSRGKG	RRGQRGKNRG (SEQ ID NO:16)
	PENSRGKG	RRGQRGKNRG (SEQ ID NO:17)
	<u>SPENSRGKG</u>	<u>RRGQRGKNRG (SEQ ID NO:51)</u>
	NPENSRGKG	RRGQRGKNRG (SEQ ID NO:18)
	ANPENSRGKG	RRGQRGKNRG (SEQ ID NO:19)
A	ANPENSRGKG	RRGQRGKNRG (SEQ ID NO:20)
AA	ANPENSRGKG	RRGQRGKNRG (SEQ ID NO:21)
AAA	ANPENSRGKG	RRGQRGKNRG (SEQ ID NO:22)
QAAA	ANPENSRGKG	RRGQRGKNRG (SEQ ID NO:23)
RQAAA	ANPENSRGKG	RRGQRGKNRG (SEQ ID NO:24)
NRQAAA	ANPENSRGKG	RRGQRGKNRG (SEQ ID NO:25)
RNRQAAA	ANPENSRGKG	RRGQRGKNRG (SEQ ID NO:26)
ERNRQAAA	ANPENSRGKG	RRGQRGKNRG (SEQ ID NO:27)
RERNRQAAA	ANPENSRGKG	RRGQRGKNRG (SEQ ID NO:28)
RRERNRQAAA	ANPENSRGKG	RRGQRGKNRG (SEQ ID NO:29)
P	RRERNRQAAA	ANPENSRGKG RRGQRGKNRG (SEQ ID NO:30)
LP	RRERNRQAAA	ANPENSRGKG RRGQRGKNRG (SEQ ID NO:31)
VLP	RRERNRQAAA	ANPENSRGKG RRGQRGKNRG (SEQ ID NO:32)
AVLP	RRERNRQAAA	ANPENSRGKG RRGQRGKNRG (SEQ ID NO:33)
MAVLP	RRERNRQAAA	ANPENSRGKG RRGQRGKNRG (SEQ ID NO:34)
QMAVLP	RRERNRQAAA	ANPENSRGKG RRGQRGKNRG (SEQ ID NO:35)
KQMAVLP	RRERNRQAAA	ANPENSRGKG RRGQRGKNRG (SEQ ID NO:36)
DKQMAVLP	RRERNRQAAA	ANPENSRGKG RRGQRGKNRG (SEQ ID NO:37) and
PDKQMAVLP	RRERNRQAAA	ANPENSRGKG RRGQRGKNRG (SEQ ID NO:38)

or a substitution or deletion variant of X, wherein said variant is in excess of 70% identical to an amino acid sequence of X as set forth above when four gaps in a length of 100 amino acids may be introduced to assist in that alignment, and

(b) a pharmaceutically acceptable vehicle.

45. **(Currently Amended)** A method for affecting the survival or function of neurons comprising administering a pharmaceutical composition comprising:

(a) a truncated glial cell line-derived neurotrophic factor (GDNF) protein product consisting of an amino acid sequence

X-(Cys⁴¹-Cys¹³³)-Y

wherein

(Cys⁴¹-Cys¹³³) consists of Cys⁴¹ through Cys¹³³ of SEQ ID NO:2;

Y represents the carboxy terminal group of Cys¹³³, a carboxy-terminus amino acid residue of Ile¹³⁴, or a substituted amino acid residue, and

X represents a methionylated or nonmethionylated amine group of Cys⁴¹ or amino-terminus amino acid residue(s) selected from the group:

	G
	RG
	NRG
	KNRG (SEQ ID NO:3)
	GKNRG (SEQ ID NO:4)
	RGKNRG (SEQ ID NO:5)
	QRGKNRG (SEQ ID NO:6)
	GQRGKNRG (SEQ ID NO:7)
	RGQRGKNRG (SEQ ID NO:8)
	RRGQRGKNRG (SEQ ID NO:9)
G	RRGQRGKNRG (SEQ ID NO:10)
KG	RRGQRGKNRG (SEQ ID NO:11)
GKG	RRGQRGKNRG (SEQ ID NO:12)
RGKG	RRGQRGKNRG (SEQ ID NO:13)
SRGKG	RRGQRGKNRG (SEQ ID NO:14)
NSRGKG	RRGQRGKNRG (SEQ ID NO:15)
ENSRGKG	RRGQRGKNRG (SEQ ID NO:16)
PENSRGKG	RRGQRGKNRG (SEQ ID NO:17)
<u>SPENSRGKG</u>	<u>RRGQRGKNRG (SEQ ID NO:51)</u>
NPENSRGKG	RRGQRGKNRG (SEQ ID NO:18)
ANPENSRGKG	RRGQRGKNRG (SEQ ID NO:19)
A	ANPENSRGKG RRGQRGKNRG (SEQ ID NO:20)
AA	ANPENSRGKG RRGQRGKNRG (SEQ ID NO:21)
AAA	ANPENSRGKG RRGQRGKNRG (SEQ ID NO:22)
QAAA	ANPENSRGKG RRGQRGKNRG (SEQ ID NO:23)
RQAAA	ANPENSRGKG RRGQRGKNRG (SEQ ID NO:24); <u>and</u>
NRQAAA	ANPENSRGKG RRGQRGKNRG (SEQ ID NO:25)

C²
cont.

RNROAAA ANPENSRGKG RRGQRGKNRG (SEQ ID NO:26)
 ERNRQAAA ANPENSRGKG RRGQRGKNRG (SEQ ID NO:27)
 RERNRQAAA ANPENSRGKG RRGQRGKNRG (SEQ ID NO:28)
 RRERNRQAAA ANPENSRGKG RRGQRGKNRG (SEQ ID NO:29)
 P RRERNRQAAA ANPENSRGKG RRGQRGKNRG (SEQ ID NO:30)
 LP RRERNRQAAA ANPENSRGKG RRGQRGKNRG (SEQ ID NO:31)
 VLP RRERNRQAAA ANPENSRGKG RRGQRGKNRG (SEQ ID NO:32)
 AVLP RRERNRQAAA ANPENSRGKG RRGQRGKNRG (SEQ ID NO:33)
 MAVLP RRERNRQAAA ANPENSRGKG RRGQRGKNRG (SEQ ID NO:34)
 QMAVLP RRERNRQAAA ANPENSRGKG RRGQRGKNRG (SEQ ID NO:35)
 KQMAVLP RRERNRQAAA ANPENSRGKG RRGQRGKNRG (SEQ ID NO:36)
 DKQMAVLP RRERNRQAAA ANPENSRGKG RRGQRGKNRG (SEQ ID NO:37) and
 PDKQMAVLP RRERNRQAAA ANPENSRGKG RRGQRGKNRG (SEQ ID NO:38); and

(b) a pharmaceutically acceptable vehicle.

46. **(Currently Amended)** A method according to Claim 30 or 45 wherein X is selected from the group consisting of SEQ ID NO: 3, 7, 8, 14, 17, 24, 51 and 18.

47. **(Previously Added)** A method according to Claim 30 or 45, wherein X is G, RG or NRG.

48. **(Previously Added)** A method according to Claim 30 or 45, wherein said GDNF protein product has the amino acid sequence of SEQ ID NO:42.

49. **(Withdrawn)**

50. **(Withdrawn)**